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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,850	02/05/2002	Densen Cao	5061.5 P	9425

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EXAMINER	
LEWIS, RALPH A	

ART UNIT	PAPER NUMBER
3732	

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/072,850	CAO, DENSEN	
	Examiner	Art Unit	
	Ralph A. Lewis	3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,8-15 and 17-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5, 8-15, 17-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Finality of 9/27/2004 Office Action Withdrawn

The finality of the last Office action is withdrawn in view of the new grounds of rejection of previously allowed claims 13-18.

Rejections based on Obvious-type Double Patenting

The terminal disclaimer filed 15 November 2004 has been disapproved because it incorrectly lists application 10/017,455 as 10/017,544 and the filing date of application 10/072,831 is 2/6/02, not 2/5/02. Accordingly, the obvious-type double patenting rejections are herein repeated.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 11, 12, 19 and 20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-36 of U.S. Patent No. 6,331,111. The patented claims of 6,331,111 set forth all the limitations of the present claims, but present them in a more detailed narrower version than those of

the present application. Merely setting forth the already patented structure in broader versions would have been obvious to one of ordinary skill in the art.

Claims 5, 8-10 and 13-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-36 of U.S. Patent No. 6,331,111 in view of Mills (WO 99/16136). The patented claims of 6,331,111 set forth all the limitations of the present claims with the exception of those requiring the secondary heat sink to be elongated. Mills, however, teaches that it is desirable to provide for an elongated secondary heat sink 45, 50, 51, in order to draw heat away from the primary heat sink 48. To elongate the secondary heat sink set forth in the patented claims of 6,331,111 in order to better draw heat away from the primary heat sink as taught by Mills would have been obvious to one of ordinary skill in the art.

Claims 1-5, 8-15, and 17-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over

claims 1-20 of copending Application No. 10/016,992;
claims 1-20 of copending Application No. 10/017,272;
claims 1-20 of copending Application No. 10/017,454;
claims 1-20 of copending Application No. 10/017,455;
claims 1-23 of copending Application No. 10/067,692;
claims 1-17 of copending Application No. 10/071,847;
claims 1-17 of copending Application No. 10/072,462;
claims 1-18 of copending Application No. 10/072,613;
claims 1-19 of copending Application No. 10/072,635;
claims 1-20 of copending Application No. 10/072,659;

claims 1-23 of copending Application No. 10/072,826;
claims 1-20 of copending Application No. 10/072,852;
claims 1-17 of copending Application No. 10/072,831;
claims 1-20 of copending Application No. 10/072,853;
claims 1-20 of copending Application No. 10/072,859;
claims 1-20 of copending Application No. 10/073,672;
claims 1-20 of copending Application No. 10/073,819;
claims 1-20 of copending Application No. 10/073,822;
claims 1-19 of copending Application No. 10/073,823; and
claims 1-20 of copending Application No. 10/076,128.

The limitations of the present claims all appear to broader or slightly different obvious versions of the pending claims in the above identified applications. Merely leaving out limitations (e.g. the "wall outlet power adapter" of claim 1 in 10/016,992) in order to make the claims broader or providing for different groupings of the elements set forth in the claims of the above identified pending applications would have been obvious to the ordinarily skilled artisan.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Rejections based on Prior Art

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 13, 14 and 18 are rejected under 35 U.S.C. 102(a) as being anticipated by Mills et al (WO 99/16136).

Mills et al disclose a dental curing light (page 1, second paragraph) comprised of a hand held wand (Figure 5). The Mills et al hand held wand includes a battery power source 52 and inherently must posses electronic control circuitry for operation of the curing light. The wand further includes a light module having an elongated heat sink 45, 50, 51, with a distal end surface serving as a mounting location on which primary heat sink 48 is mounted. An array of covered light emitting semiconductor chips 43 is mounted to the primary heat sink 48.

In regard to the light emitted from the semiconductor chip at an orthogonal angle limitation, the light emitting semiconductor chips 43 of Mills et al would inherently have some incidental light that was emitted at a right angle to the chips (see for example Sakai et al (4,698,730) Figure 1, 7; Doiron et al (5,698,866) Figure 10; as well as, applicant's own specification Figure 22a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills et al (WO 99/16136).

Mills et al does not explicitly disclose the use of an on/off switch, however, the use of such a conventional mechanism for controlling an electrical device would have been obvious to the ordinarily skilled artisan.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (WO 99/16136) in view of Doiron et al (5,698,866).

In Mills the LEDs are mounted directly on a flat heat sink 48. Doiron et al, however, teach that an improvement over mounting diodes on a flat surface (Figures 9 and 10) is mounting them in a well (Figures 11 and 12) formed on the heat sink so that more light from the LEDs is reflected forward in the desired direction. To have mounted the Mills LEDs in wells as taught by Doiron et al so that more light is reflected forward in the desired direction would have been obvious to one of ordinary skill in the art.

In regard to the orthogonal limitation of parent claim 13 and the well limitation of the present claim 17, it is noted that incidental orthogonal light being inherently emitted from the semi-conductor chips 43 of Mills et al would be reflected forward in a straight orientation by the well walls (taught by Doiron et al), however, claim 13 calls for the light that is emitted by the semiconductor device to be orthogonal and not the light that is emitted from a light module that includes a semiconductor chip within a well.

Allowable Subject Matter

Claims 1-5, 8-12, 19 and 20 would be allowable upon the filing of a terminal disclaimer overcome the obvious-type double patenting rejections.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712.** Fax (703) 872-9306. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Kevin Shaver, can be reached at (571) 272-4720.

R.Lewis
February 7, 2005

Ralph A. Lewis
Primary Examiner
AU3732